

## Contributions to the Neuropterology of the United States. No. 1.

BY P. R. UHLER.

## NANNOPHYA Rambur.

*N. bella*. Black, pleura and sides marked with yellow; wings with a saturate pale-ferruginous spot at base enclosing a number of round dots of a darker color.

Length  $\frac{3}{4}$  inch. Baltimore. June.

♀. Trophi blackish, front white with a large black spot upon the middle, vertex blue, eyes brown, antennæ black: thorax black with a yellow vitta upon the pleura becoming posteriorly confluent with patches of the same color, interalary surface maculate with yellow: wings hyaline, a broad, saturate yellowish-ferruginous spot at base occupying about one-third of their surface and enclosing a number of small round dots of a deeper color; pterostigma small, black: legs black, spiny: abdomen black annulated with yellow, caudal tip and appendages also yellow.

This beautiful little species, the second only of the genus yet known, differs a little from the type and must be placed in a division which may be characterized by having two ranges of discoidal areolets. It is very rare and the male is yet unknown to me.

## LIBELLULA Lin.

1. *L. bistigma*. Lead-blue; wings with a ferruginous tint upon the costal margin, stigma brown and white.

Length 2 inches. Baltimore. June and July.

♂. Body entirely lead blue; eyes brown, trophi dusky; frontal and vertical vesicles dark blue, antennæ black, stemmata brownish: thorax medially with a deep longitudinal depression, a sharp carina occupying the middle: wings lacteo-hyaline, costal margins slightly tinged with ferruginous, sometimes extending narrowly upon the tips, stigma bicolored, half brown and half white, membranes narrow, whitish: legs black, anterior ones dusky at base: abdomen trigonal, carinate, tapering towards the tip, cerci subfusiform, sub-acute.

The female of this species I have not yet been able to discover, notwithstanding it is here very common; I was tempted to suppose it to be a geographical variety of the species following: however as I have not yet heard that doctrine fully elucidated it seems hardly prudent for me to venture any further suggestions upon the subject.

2. *L. plumbea*. Lead color; pleura with two white spots; wings with a tinge of ferruginous upon the costal margin.

Length 2 inches. Baltimore. July.

♂. Body plumbeous: labium, base of mandibles, and sides of nasus and front white; mandibles at tip, labrum, nasus, front and antennæ black; frontal and vertical vesicles dark blue, eyes brown, occiput with two yellow spots behind each eye: pleura each with two common white patches, which are divided by black sutures, dorsolum and metapnystega also white, dorsal middle longitudinally depressed, but slightly carinated: wings hyaline with a ferruginous tinge upon the costal margin, stigma long, brown: abdomen gradually tapering posteriorly, carinate, first and second segments white beneath, caudal segment and appendages black, cerci fusiform, sub-acute.

♀. Body pale brown; head, dorsal line, line between the wings, pleural spots, pectus, sides of tergum and femora, testaceous-yellow; eyes brown, antennæ black: costal margins and tips of the wings ferruginous: abdomen sub-depressed, tergum with a gradually dilating brown line upon the middle, antepenultimate segment broadly dilated.

3. *L. confusa*. Fuscous; thorax with two oblique yellow lines upon the pleura, connected with each of which is a pale trigonal spot; wings with a brown basal line, and medial and apical spot.

Length  $1\frac{3}{4}$  inches. Baltimore and Boston.

1857.]

♀. *Fuscous*: head, with the frontal vesicles above, labium and spots upon the occiput yellow, antennæ and connecting line black, eyes brown: pleura with two oblique yellow lines bounding inferiorly a trigonal pale spot, a pale transverse line between the pairs of wings: wings hyaline, at the base a longitudinal line, a spot upon the anterior middle, and another upon the apex, brown, nervules of the spots and intervening surface yellow, pterostigma black: legs pale at base, black upon the tip of the femora and tibiæ: abdomen brownish, a little depressed, antepenultimate segment a little dilated, a dark line upon the middle, and one each side bright yellow, venter lined with yellow each side, cerci short, subfusiform, acute, inferior appendage same length as cerci.

♂. Differs but little from the ♀ in size and coloring; it may be distinguished from *L. pulchella*, Drury,—to which it is very closely allied—in the lateral yellow vitta and much larger size of the ♀: the male always wants the plumbeous abdomen, which is common to *L. pulchella*.

4. *L. s a t u r a t a*. Reddish yellow; head —; thorax dark yellowish-red, pale beneath and upon the sides; wings humeral portion saturate reddish-yellow, cubital portion hyaline, nervules red, pterostigma red, margined anteriorly and posteriorly by a black nervule; legs rufous, pale at base, tibial spines black; abdomen slightly dilated, carinate, trigonate, lateral edge and denticles black; cerci subfusiform, acuminate, armed with a row of minute tubercles upon the inferior surface, inferior caudal appendage oval, tapering at tip and emarginate.

Length 2 inches. San Diego trip. Dr. T. H. Webb.

This species is indicated by a mutilated individual only; the head and a great part of the wings and legs are gone, and those parts remaining are in so bad a condition as to render it almost uncharacterizable. It apparently belongs to a group having five rows of discoidal areolets; the triangle is crossed by four nervules.

5. *L. J u l i a*. *Fuscous*, pubescent; eyes brown, darker below, tips of mandibles, line between the antennæ, antennæ and pubescence upon the front black, front and occipital spots yellowish; thorax with the superior, middle-surface and pleura pale fuscous, humerus with a dark-brown longitudinal line; wings hyaline, posterior pair with a trigonal dark-brown spot at base of each, necks of anterior pair tinged with brown, nervules and pterostigma dark-brown, the latter narrow and a little elongated, membranes narrow whitish; legs with the coxæ, trochanters and bases of femoræ pale reddish-yellow, tibiæ and tarsi blackish; abdomen sub-depressed, slightly carinate above, line upon the middle of the posterior segments and lateral margin black, caudal appendages yellow, cerci short, subfusiform, minutely, serially, granulate beneath.

Length  $1\frac{1}{2}$  inches. Fort Steilacoom, W. Territory. Dr. Suckley.

A species very closely allied to *L. trimaculata* *De Geer*. It possesses three ranges of discoidal areolets, and the triangle is crossed by only one nervule.

6. *L. a s s i m i l a t a*. Pale-yellow; head yellowish-testaceous, a black line covering the antennal suture, tips of mandibles and antennæ black, front and vertex closely covered with blackish hair; thorax densely pubescent, pectus pale-testaceous; wings hyaline, tinted with yellow upon the base and humeral margin, costal nervule dotted with minute, black points, pterostigma yellow, margined anteriorly and posteriorly, by a black nervule; legs black, coxæ, trochanters and inferior surface of the anterior legs, yellowish; abdomen, almost transparent, yellowish, cerci —.

Length  $1\frac{1}{2}$  inches. Fort Union, Nebraska. Dr. Suckley

The three individuals, the only ones that I have had the opportunity of examining, are in such a mutilated condition as to render it very difficult to characterize them properly; enough, however, remains to indicate their distinctness from all the other species that have yet been noticed.

They have three ranges of discoidal areolets to the primary wings, and the triangle is crossed by a single nervule.

The three foregoing insects were kindly placed in my hands by Dr. Chas. Girard, to whom I would embrace this opportunity of returning my thanks.

{March